

REMARKS

Claims 1 and 6-13 are presented for consideration, with Claim 1 being independent. Claim 1 has been amended in the manner discussed during the personal interview of June 10, 2008, to better set forth Applicants' invention.

All of the claims, i.e., Claims 1 and 6-13, are rejected under 35 U.S.C. §103 as allegedly being obvious over Suzuki '361 in view of Sarrasin '000. This rejection is respectfully traversed.

Claim 1 of Applicants' invention relates to an image display apparatus comprised of electron-emitting devices driven in a matrix by a plurality of row wirings and column wirings, a scanning circuit for sequentially selecting and scanning the row wirings, and a modulation circuit for generating a modulated signal by modulating both a pulse width and a voltage amplitude, with the modulated signal being applied to the column wirings. In addition, a voltage drop compensation circuit calculates corrected image data for reducing an influence of voltage drops due to at least resistance components of the row wirings, with respect to the image data. A voltage drop compensation circuit includes an effective voltage calculation circuit for finding an effective voltage value on the basis of the image data, with the effective voltage value being a value obtained by averaging in a time direction a voltage amplitude value of the modulated signal corresponding to the image data for one horizontal scanning period, and a compensation value calculating circuit for calculating a compensation value for reducing an influence of voltage drops due to at least resistance components of the row wirings, with respect to the effective

voltage value. The modulation circuit outputs a modulated signal on the basis of the corrected image data.

In accordance with Applicants' invention, a high performance image display apparatus is provided.

The primary citation to Suzuki relates to an electron beam generating device that, according to the Office Action, includes a scanning circuit 202, a modulation circuit 209, and a voltage drop compensation circuit 206, 207 and 208. In addition, correction rate setting memory 207 is said to be analogous to Applicant's claimed effective voltage calculating circuit for finding an effective voltage value on the basis of image data, and multiplier 208 is said to be analogous to Applicants' claimed compensation value calculating circuit. The Office Action acknowledges that Suzuki does not provide a modulation circuit that generates a modulated signal by modulating both a pulse width and a voltage amplitude.

The secondary citation to Sarrasin relates to a display device and is relied on for allegedly teaching a voltage drop compensation circuit to correct image data for reducing influence of voltage drops due to the resistance of the row wiring using a modulated signal by modulating both a pulse width and a voltage amplitude.

Initially, it is submitted that Sarrasin is directed to controlling a microchip fluorescent display, but does not include a voltage drop compensation circuit as asserted on page 3 of the Office Action. The disclosure in Sarrasin relied on in the Office Action (Col. 2, lines 45 - 55) merely discusses a TFT (Thin Film Transistor) display in which a large number of different final voltages can be obtained on the basis of a restricted number of external voltage sources. Sarrasin

is not read to teach or suggest a voltage calculating circuit for finding an effective voltage value on the basis of image data, and therefore it would not be have been obvious to substitute Sarrasin's teachings in Suzuki in the manner proposed in the Office Action.

Further, it is submitted that Suzuki fails to teach or suggest an effective voltage calculating circuit as alleged in the Office Action. As recited in Claim 1, Applicants' effective voltage calculating circuit finds an effective voltage value based on image data, with the effective voltage value being a value obtained by averaging in a time direction a voltage amplitude value of the modulated signal corresponding to the image data for one horizontal scanning. Suzuki does not do this. Instead, Suzuki uses a one line average luminance per element (see column 11, line 66 through column 12, line 28), which would not yield Applicants' claimed effective voltage value. Therefore, it is respectfully submitted that the proposed combination of Suzuki and Sarrasin, even if proper, still fails to teach or suggest Applicants' claimed invention.

Accordingly, reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103 is respectfully requested.

Thus, it is submitted that Applicants' invention as set forth in independent Claim 1 is patentable over the cited art. In addition, dependent Claims 6-13 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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